A Synoptic Review of U.S. Rangelands

A Technical Document Supporting the Forest Service 2010 RPA Assessment

Matthew Clark Reeves and John E. Mitchell



Reeves, Matthew Clark; Mitchell, John E. 2012. A synoptic review of U.S. rangelands: a technical document supporting the Forest Service 2010 RPA Assessment. Gen. Tech. Rep. RMRS-GTR-288. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 128 p.

Abstract: The Renewable Resources Planning Act of 1974 requires the USDA Forest Service to conduct assessments of resource conditions. This report fulfills that need and focuses on quantifying extent, productivity, and health of U.S. rangelands. Since 1982, the area of U.S. rangelands has decreased at an average rate of 350,000 acres per year owed mostly to conversion to agricultural and residential land uses. Nationally, rangeland productivity has been steady over the last decade, but the Rocky Mountain Assessment Region appears to have moderately increased productivity since 2000. The forage situation is positive and, from a national perspective, U.S. rangelands can probably support a good deal more animal production than current levels. Sheep numbers continue to decline, horses and goats have increased numbers, and cattle have slightly increased, averaging 97 million animals per year since 2002. Data from numerous sources indicate rangelands are relatively healthy but also highlight the need for consolidation of efforts among land management agencies to improve characterization of rangeland health. The biggest contributors to decreased rangeland health, chiefly invasive species, are factors associated with biotic integrity. Non-native species are present on 50 percent of non-Federal rangelands, often offsetting gains in rangeland health from improved management practices.

Keywords: rangeland health, livestock, remote sensing, rangeland extent, grazing, coterminous United States, Renewable Resources Planning Act

Authors

Matthew Clark Reeves is a Post Doctoral Research Ecologist in the Human Dimensions program of the USDA Forest Service, Rocky Mountain Research Station in Missoula, Montana. He earned his B.S. degree in Range Management from Washington State University, his M.S. degree in Environmental Resources from Arizona State University, and a Ph.D. in Ecosystem and Conservation Sciences from the University of Montana. He specializes in using remote sensing and spatial analysis to understand the status and trends of natural resources and biospheric processes and is an active participant in the Sustainable Rangelands Roundtable and Society for Range Management.

John E. Mitchell is an Emeritus Rangeland Scientist with the Rocky Mountain Research Station in Fort Collins, Colorado. Prior to retiring in 2009, his research supported the rangeland component of the Renewable Resources Planning Act Assessment. Since that time, he has continued to assist with rangeland work for the Assessment and has been an active participant in the Sustainable Rangelands Roundtable and Society for Range Management. Mitchell is a Certified Professional in Rangeland Management.

You may order additional copies of this publication by sending your mailing information in label form through one of the following media. Please specify the publication title and number.

Publishing Services

Telephone (970) 498-1392
FAX (970) 498-1122
F-mail rschneider@fs.fed.us
Web site http://www.fs.fed.us/rmrs
Publications Distribution

Rocky Mountain Research Station 240 West Prospect Road Fort Collins, CO 80526